



UNITED STATES PATENT AND TRADEMARK OFFICE

W
UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/621,574	07/18/2003	Paul Richer	16486-1US CMB/al	2116
20988	7590	01/10/2008	EXAMINER	
OGILVY RENAULT LLP			BURLESON, MICHAEL L	
1981 MCGILL COLLEGE AVENUE				
SUITE 1600			ART UNIT	PAPER NUMBER
MONTRÉAL, QC H3A2Y3			2625	
CANADA				
			MAIL DATE	DELIVERY MODE
			01/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/621,574	RICHER, PAUL
	Examiner	Art Unit
	Michael Burleson	2625

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on ____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) Claim(s) ____ is/are allowed.
- 6) Claim(s) 1-29,31-57 and 59-65 is/are rejected.
- 7) Claim(s) 30 and 58 is/are objected to.
- 8) Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on ____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. ____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. ____.
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>01/16/2004</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: ____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) was submitted on 01/16/2004. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-29, 31-57 and 59- 65 rejected under 35 U.S.C. 102(b) as being anticipated by Campbell US 5625756.

Regarding claim 1, Campbell teaches a macro-pixel used in an image rendering process for forming an image using a matrix of said macro-pixels, said macro-pixel having a plurality of rectilinear parallel rows, all said rows extending across said matrix in the same direction, each one of said rows capable of at least partially adopting an on state and an off state, wherein said on state includes presence of color and said off state includes absence of color (figure 2 and column 6, lines 61-65).

Regarding claim 2, Campbell teaches wherein said on state comprises a key color state and a non-key color state (column 6, lines 65-67).

Regarding claim 3, Campbell teaches wherein said non-key color state comprises at least one color selected from the group consisting of cyan, magenta, and yellow (column 1, lines 17-26 and column 6, lines 1-15).

Regarding claim 4, Campbell teaches wherein all said rows in at least partially same state are adjacently grouped (figure 2).

Regarding claim 5, Campbell teaches wherein said matrix forms a pattern whereby a maximal parallel distance exists between rows in said non-key color state and rows in said key color state. (figure 2)

Regarding claim 6, Campbell teaches wherein said key color state comprises at least one of the color black and a darkest color in a possible selection of color states (column 3, lines 52-57).

Regarding claim 7, Campbell teaches wherein said non-key color state comprises at least one color selected from the group consisting of cyan, magenta, and yellow (column 1, lines 17-26 and column 6, lines 1-15).

Regarding claim 8, Campbell wherein each row comprises at least one micro-pixel forming rectilinear parallel columns across said matrix in a direction perpendicular to said rows (figure 2).

Regarding claim 9, Campbell teaches wherein each said micro-pixel is capable of adopting said on state and said off state (column 6, lines 61-65).

Regarding claim 10, Campbell teaches wherein said micro-pixels are capable of adopting said on state according to a first predetermined order (column 6, lines 65-67).

Regarding claim 11, Campbell teaches wherein said first predetermined order is different for said non-key color state and said key color state (column 6, lines 65-67).

Regarding claim 12, Campbell teaches further comprising upper and lower edges and wherein said first predetermined order begins with one of said micro-pixels in a row located at a substantial equidistance from said upper and lower edges thereby defining a first order micro-pixel (figure 2).

Regarding claim 13, Campbell teaches comprising left and right edges and wherein said first order micro-pixel is in a position at a substantial equidistance from said left and right edges (figure 2).

Regarding claim 14, Campbell teaches wherein said first predetermined order continues with the micro-pixel in said off state which is closest to said substantial left and right edge equidistance until all micro-pixels in a row have adopted said on state (column 6, lines 61-65 and figure 6).

Regarding claim 15, Campbell teaches wherein, after all micro-pixels in a row have adopted said on state, said first predetermined order further continues, in a row which is the next one closest to substantial upper and lower edge equidistance, with the micro-pixel in said off state which is closest to said substantial left and right edge equidistance.

Regarding claim 16, Campbell teaches wherein said micro-pixels are capable of adopting said on state according to a second predetermined order, wherein said on state in said first predetermined order corresponds either one of said non-key color

state and said key color state and wherein said on state in said second predetermined order corresponds to the other one of said non-key color state and said key color state (figure 4).

Regarding claim 17, Campbell teaches wherein said second predetermined order begins with one of said micro-pixels in a row closest to one of said upper and said lower edges thereby defining a second order micro-pixel (figure 2).

Regarding claim 18, Campbell teaches wherein said second order micro-pixel is in position at a substantial equidistance from said left and right edges (figure 2).

Regarding claim 19, Campbell teaches wherein said second predetermined order continues with the micro-pixel in said off state which is closest to said substantial left and right edge equidistance until all micro-pixels in a row have adopted said on state (figure 2).

Regarding claim 20, Campbell teaches wherein, after all micro-pixels in a row have adopted said on state, said second predetermined order further continues, in a row which is next one closest to the other one of said upper and said lower edges, with the micro-pixel in said off state which is closest to said substantial left and right edge equidistance (figure 4).

Regarding claim 21, Campbell teaches wherein said macro-pixels form odd and even numbered horizontal lines of said matrix, further wherein said micro-pixels in said odd lines are capable of adopting said on state according to one of a first predetermined order and a second predetermined order, and said even lines are capable of adopting

said on state according to the other one of a first predetermined order and a second predetermined order (figure 4, lines 51-65).

Regarding claim 22, Campbell teaches comprising upper and lower edges and wherein said first predetermined order begins with one of said micro-pixels in a row closest to said upper edge thereby defining a first order micro-pixel, and said second predetermined order begins with one of said micro-pixels in a row closest to said lower edge thereby defining a second order micro-pixel (figure 4).

Regarding claim 23, Campbell teaches comprising left and right edges and wherein said first and second order micro-pixels are in a position at a substantial equidistance from said left and right edges (figure 4).

Regarding claim 24, Campbell teaches said first and second predetermined orders continue, in their respective rows, with the micro-pixel in said off state which is closest to said substantial left and right edge equidistance until all micro-pixels in a row have adopted said on state (figure 4).

Regarding claim 25, Campbell teaches wherein, after all micro-pixels in a row have adopted said on state, said first predetermined order further continues, in a row which is next one closest to said upper edge, and wherein said second predetermined order further continues, in a row which is next one closest to said lower edge, with the micro-pixel in said off state which is closest to said substantial left and right edge equidistance (figure 4).

Regarding claim 26, Campbell teaches wherein each row comprises at least one micro-pixel forming rectilinear parallel columns across said matrix in a direction perpendicular to said rows (figure 4).

Regarding claim 27, Campbell teaches wherein said micro-pixels are capable of adopting said on state in a predetermined order (column 6, lines 59-67).

Regarding claim 28, Campbell teaches wherein said image rendering process comprises a printing process comprising a continuous linear production direction and wherein direction of said rows is dependent on said continuous linear production direction (figure 4).

Regarding claim 29, Campbell teaches wherein said row direction is perpendicular to said continuous linear production direction (figure 2).

Regarding claim 31, the structural elements of apparatus claim 1 perform all of the steps of method claim 31. Thus, claim 31 is rejected for the same reasons discussed in the rejection of claim 1

Regarding claim 32, the structural elements of apparatus claim 2 perform all of the steps of method claim 32. Thus, claim 32 is rejected for the same reasons discussed in the rejection of claim 2.

Regarding claim 33, the structural elements of apparatus claim 3 perform all of the steps of method claim 33. Thus, claim 33 is rejected for the same reasons discussed in the rejection of claim 3

Regarding claim 34, the structural elements of apparatus claim 4 perform all of the steps of method claim 34. Thus, claim 34 is rejected for the same reasons discussed in the rejection of claim 4.

Regarding claim 35, the structural elements of apparatus claim 5 perform all of the steps of method claim 35. Thus, claim 35 is rejected for the same reasons discussed in the rejection of claim 5.

Regarding claim 36, the structural elements of apparatus claim 6 perform all of the steps of method claim 36. Thus, claim 36 is rejected for the same reasons discussed in the rejection of claim 6.

Regarding claim 37, the structural elements of apparatus claim 7 perform all of the steps of method claim 37. Thus, claim 37 is rejected for the same reasons discussed in the rejection of claim 7.

Regarding claim 38, the structural elements of apparatus claim 8 and 9 perform all of the steps of method claim 38. Thus, claim 38 is rejected for the same reasons discussed in the rejection of claim 8 and 9.

Regarding claim 39, the structural elements of apparatus claim 10 perform all of the steps of method claim 39. Thus, claim 39 is rejected for the same reasons discussed in the rejection of claim 10.

Regarding claim 40, the structural elements of apparatus claim 11 perform all of the steps of method claim 40. Thus, claim 40 is rejected for the same reasons discussed in the rejection of claim 11.

Regarding claim 41, the structural elements of apparatus claim 12 perform all of the steps of method claim 41. Thus, claim 41 is rejected for the same reasons discussed in the rejection of claim 12.

Regarding claim 42, the structural elements of apparatus claim 13 perform all of the steps of method claim 42. Thus, claim 42 is rejected for the same reasons discussed in the rejection of claim 13.

Regarding claim 43, the structural elements of apparatus claim 14 perform all of the steps of method claim 43. Thus, claim 43 is rejected for the same reasons discussed in the rejection of claim 14.

Regarding claim 44, the structural elements of apparatus claim 15 perform all of the steps of method claim 44. Thus, claim 44 is rejected for the same reasons discussed in the rejection of claim 15.

Regarding claim 45, the structural elements of apparatus claim 16 perform all of the steps of method claim 45. Thus, claim 45 is rejected for the same reasons discussed in the rejection of claim 16.

Regarding claim 46, the structural elements of apparatus claim 17 perform all of the steps of method claim 46. Thus, claim 46 is rejected for the same reasons discussed in the rejection of claim 17.

Regarding claim 47, the structural elements of apparatus claim 18 and 19 perform all of the steps of method claim 47. Thus, claim 47 is rejected for the same reasons discussed in the rejection of claim 18 and 19.

Regarding claim 48, the structural elements of apparatus claim 20 perform all of the steps of method claim 48. Thus, claim 48 is rejected for the same reasons discussed in the rejection of claim 20.

Regarding claim 49, the structural elements of apparatus claim 20 perform all of the steps of method claim 49. Thus, claim 49 is rejected for the same reasons discussed in the rejection of claim 20.

Regarding claim 50, the structural elements of apparatus claim 21 perform all of the steps of method claim 50. Thus, claim 50 is rejected for the same reasons discussed in the rejection of claim 21.

Regarding claim 51, the structural elements of apparatus claim 22 perform all of the steps of method claim 51. Thus, claim 51 is rejected for the same reasons discussed in the rejection of claim 22.

Regarding claim 52, the structural elements of apparatus claim 23 perform all of the steps of method claim 52. Thus, claim 52 is rejected for the same reasons discussed in the rejection of claim 23.

Regarding claim 53, the structural elements of apparatus claim 24 perform all of the steps of method claim 53. Thus, claim 53 is rejected for the same reasons discussed in the rejection of claim 24.

Regarding claim 54, the structural elements of apparatus claim 25 perform all of the steps of method claim 54. Thus, claim 54 is rejected for the same reasons discussed in the rejection of claim 25.

Regarding claim 55, Campbell teaches comprising printing said image (column 3, lines 35-37).

Regarding claim 56, the structural elements of apparatus claim 28 perform all of the steps of method claim 56. Thus, claim 56 is rejected for the same reasons discussed in the rejection of claim 28.

Regarding claim 57, the structural elements of apparatus claim 29 perform all of the steps of method claim 57. Thus, claim 57 is rejected for the same reasons discussed in the rejection of claim 29.

Regarding claim 59, Campbell teaches comprising encoding digital data within said image (column 3, lines 35-37).

Regarding claim 60, Campbell teaches wherein said encoding digital data comprises encoding watermark data (column 1, lines 61-64).

Regarding claim 61, Campbell teaches wherein encoding said digital data comprises replacing said image forming macro-pixels with said digital data (column 3, lines 30-37).

Regarding claim 62, Campbell teaches wherein encoding said digital data comprises modulating said image forming macro-pixels with said digital data (column 3, lines 30-37).

Regarding claim 63, the structural elements of apparatus claim 2 perform all of the steps of method claim 63. Thus, claim 63 is rejected for the same reasons discussed in the rejection of claim 2.

Regarding claim 64, the structural elements of apparatus claim 3 perform all of the steps of method claim 64. Thus, claim 64 is rejected for the same reasons discussed in the rejection of claim 3.

Regarding claim 65, the structural elements of apparatus claim 3 perform all of the steps of method claim 65. Thus, claim 65 is rejected for the same reasons discussed in the rejection of claim 3.

Allowable Subject Matter

1. Claims 30 and 58 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication should be directed to Michael Burleson whose telephone number is (571) 272-7460 and fax number is (571) 273-7460. The examiner can normally be reached Monday thru Friday from 8:00 a.m. – 4:30p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Haskins can be reached at (571) 272-7406

Application/Control Number:
10/621,574
Art Unit: 2625

Page 13

Michael Burleson
Patent Examiner
Art Unit 2626

MB

Mlb
January 6, 2008

KA Williams

KIMBERLY WILLIAMS
PRIMARY EXAMINER